

PX G1300™ for CO₂ Refrigeration

INCREASE ENERGY EFFICIENCY AND REDUCE CO₂ REFRIGERATION COSTS

The PX G1300 utilizes proven pressure exchanger technology to improve year-round system performance by reducing energy costs, increasing cooling capacity, and increasing energy efficiency at high ambient temperatures. By boosting energy efficiency, new system designs may also reduce or eliminate some components, offsetting capital expenses.

Based on laboratory and real-life results, the PX G1300 device can increase the energy efficiency of CO₂-based commercial refrigeration systems by more than 25% at 35–40°C (95–104°F) and more than 30% above 40°C (104°F), compared to a standard CO₂ system with no energy recovery devices.

It's simple design and precision manufacturing ensure that the PX G1300 is highly reliable and can be seamlessly integrated into existing and new high-pressure CO₂ systems.



Save Energy

Increase energy efficiency by more than 25% at 35–40°C (95–104°F) and more than 30% above 40°C (104°F)¹



Integrate Easily

Compatible with all coolers, seamlessly retrofits into existing CO₂ systems. New training program available now.



Increase Design Temperature

Safeguard against heatwaves by increasing design temperature up to 6°C (11°F) degrees above the maximum²

¹Based on laboratory and real-life results, compared to a standard CO₂ system with no energy recovery devices.

²Estimated increase in design temperature assumes comparison to a CO₂ system with high pressure value with a 120 KW MT, 30 KW LT system and 100° F / 37.7°C gas cooler exit temperature. Results may vary from site to site, as design maximum is site dependent.

PX G1300 BENEFITS

- Offers proven, reliable technology with a 30-year history in desalination
- Improves energy efficiency and high temperature rack stability
- Reduced risk of high discharge failures and consequential damages from food losses
- Saves on operating expenses all year round
- Meets or exceeds emissions reduction targets
- Easy to operate and maintain
- Universally compatible with new and existing CO₂ transcritical refrigeration



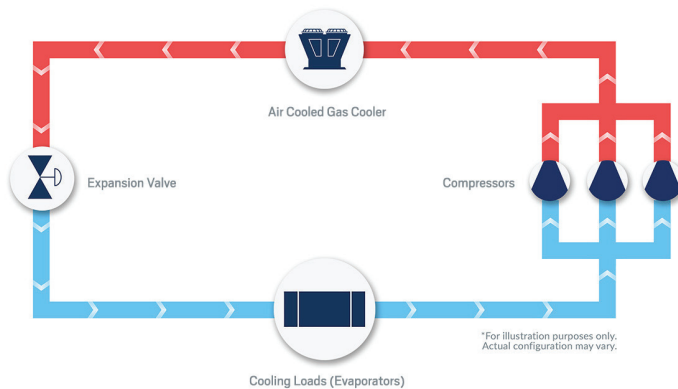
If you are ready to optimize your CO₂ system, please email us at CO2@energyrecovery.com

HOW DOES THE PX G1300 SAVE ENERGY IN A CO₂ SYSTEM?

The PX G1300 harvests the high-pressure energy of CO₂ systems to reduce electricity consumption, thereby reducing operating costs and emissions. Similar to a heat exchanger which exchanges heat between two fluid streams, the pressure exchanger works by transferring energy from high-pressure to low-pressure CO₂. The PX G1300 provides both expansion and compression to:

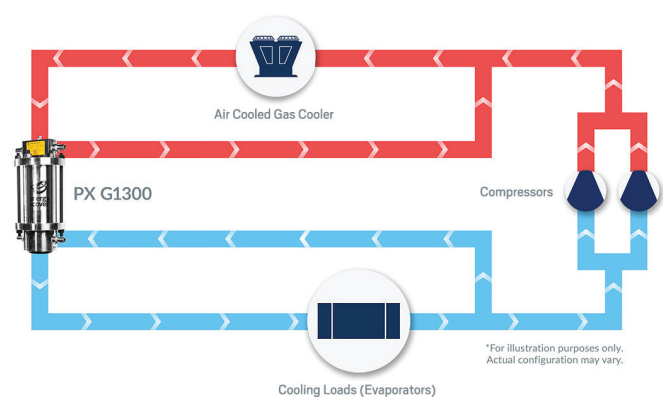
- Increase cooling capacity
- Increase system stability
- Reduce energy usage

Standard CO₂ Refrigeration System



With PX G1300™

The PX G1300 replaces the expansion valve to reduce compressor load



PROVEN AND TRUSTED TECHNOLOGY

For 30 years, Energy Recovery's pressure exchanger technology has provided significant energy and cost savings for our customers in desalination. Our leading PX[®] Pressure Exchanger[®] is a globally trusted technology with a long history providing efficiency, installed capital cost (CAPEX) reduction, and operational reliability.

Manufactured at our headquarters in California, the PX G1300 is an award-winning application of the pressure exchanger that provides those same energy-saving solutions for high-pressure CO₂ systems in commercial and industrial refrigeration.



Request access to our calculator at CO2@energyrecovery.com and calculate your savings